



FOR FACTORIES AND INDUSTRIAL PURPOSES
ANCHOR POST IRON WORKS



Catalogue No. 40

Iron Railings and Unclimbable Wire Fences

For Factories, Mills, Reservoirs, Cemeteries and Public Institutions.
Special Enclosures for Poultry, Dogs, Cattle, Sheep and Game,
Tennis Court Fences, Iron and Wire Arbors, Trellises, Garden
Appliances, Tree Guards, Hitching Posts, Sign Posts, &c., &c.

ANCHOR POST IRON WORKS

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Telephone, Cortlandt 8733-8734

BRANCH OFFICES

BLOOMFIELD, N. J., 130 Franklin Street

STAMFORD, CONN., 22 Gregory Street

MINEOLA, L. I., Jericho Turnpike

HARTFORD, CONN., 902 Main Street

SALES AGENTS

BOSTON: W. A. Snow Iron Works, 19 Portland Street

BALTIMORE: Dufur & Company, 309 North Howard Street

CHICAGO: E. R. Landon Iron and Wire Works, 18 North May Street

FACTORY: GARWOOD, NEW JERSEY



RAILING IN FRONT OF ASSEMBLING SHOP OF THE ANCHOR POST IRON WORKS. Plate 400.



The fences shown in the following pages are offered as a substitute for the wooden fences commonly used for enclosing factory properties, freight yards, reservoirs and public institutions.

Steel is supplanting wood in all branches of building and manufacture. Lumber is high in price and poor in quality. A board fence will last only a few years while the necessary repainting and repairs are increasing items of expense.

On the other hand, one of our railings or chain-link netting fences can be built at a cost equal to or not greatly in excess of the *first* cost of a solid board fence of equal height. They are built on ANCHOR posts, which are practically indestructible.

They give absolute protection to the property they enclose, but do not shut out the light and air from the factory buildings.

They are made throughout of the strongest materials and will last three or four times as long as a wooden fence while the maintenance charges are very slight.

In buying a new machine the successful manufacturer will take nothing but the best, because he is looking for long service and few repairs. The same is true with a factory fence—long service and few repairs is the cheapest policy in the end.

The illustrations on the following pages are from photographs of a few of our fences erected for well-known corporations and public institutions. We take pleasure in referring those who are interested in this subject to the Superintendents or Owners of these properties.



Although this catalogue is devoted mainly to fences for industrial purposes, the range of our products is by no means confined to this one branch of business, but includes the whole subject of fences and gates, from the simplest wire fence for farm or country place to the most elaborate and massive iron railing or gateway. We have therefore found it necessary to divide our business into departments, and to publish separate catalogues illustrating the different classes of work we do.

The following is a list of our latest publications with a brief statement of the subjects covered by each.

CATALOGUE No. 40.—Which is this catalogue, illustrates fences 6 feet in height and over for factories, mills, reservoirs, cemeteries, and institutions. These fences are of two types: One—Plain substantial iron railings. Two—Unclimbable wire fences.

CATALOGUE No. 41.—A 24-page circular, showing the principal wire fences that we manufacture, and a few examples of wrought-iron railings and gates.

CATALOGUE No. 42.—A 56-page book devoted to wire fences for all purposes. Galvanized anchor posts, enclosures of special design for poultry, game, dogs, cattle and sheep; iron and wire arbors, trellises and garden appliances, tree guards, hitching posts, sign posts, etc.

CATALOGUE No. 43.—A 56-page book of designs and photographs of iron railings, plain and ornamental, wrought-iron entrance gates for country places, parks and cemeteries, also window guards and ornamental iron work.

We will be glad to send any of the above publications to those who are interested. Prices quoted for fences erected complete in any part of the country.



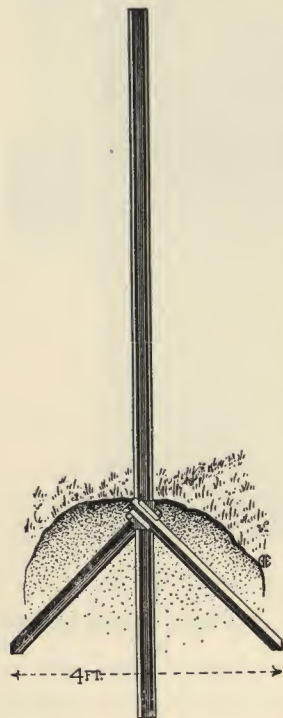
RAILING ON ANCHOR POSTS—BROOKLYN, N. Y. Plate 450.

This railing, which was built by us for the St. John's Cemetery of Brooklyn, N. Y., is 7 feet in height and 6,800 feet in length. The pickets are of $\frac{3}{4}$ -inch square bars. A detailed description of this railing is given on page 6.

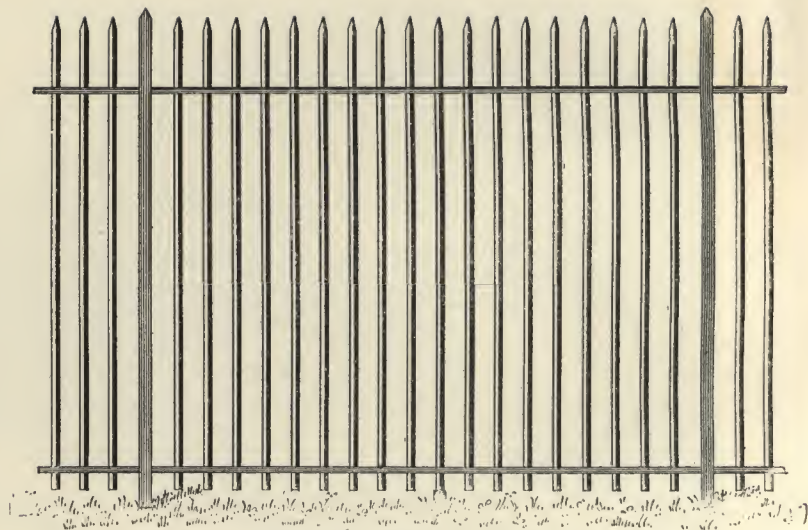
Posts can be furnished with ornamental tops in place of the plain point if desired.

For Cemeteries, Institutions, Factories, Railroads, or Country Places, this railing is both stronger and cheaper than any other iron railing of equal weight and material.

This is a strong substantial type of railing which has many advantages over any other



form of construction used heretofore in railing building. The posts are made of steel I-beams (3 by 2½ inches in diameter), and are held securely in the ground by means of two large blades or stakes which are driven through sockets clamped to the post at its base. This anchorage, which has a spread below the surface of 4 feet, holds the post rigid against all strains. (See pages 7, 8, and 9.)



IRON RAILING ON ANCHOR POSTS. Plate 425.

The construction of the railing is so simple that it can be put in place by any intelligent mechanic. There are no complicated parts or fittings to get out of order. Very little digging is necessary in setting the posts and it is therefore more easily and quickly erected than any other type of iron fence.

By loosening the clamp bolts the post can be raised or lowered without removing the blade Anchorage, thus readily making a readjustment of grade if necessary.

The rails are 2 by 1½ inch channel rails and the pickets are made of any desired size.

The tests described on these pages were made by Frederick L. Pryor, M.E., Professor of Experimental Engineering, Stevens Institute of Technology, Hoboken, N. J. The first test shown by Figure 1, was made to determine the carrying capacity of our anchorage. The weight of an ordinary panel of railing, such as shown on pages 5-6, is not over 350 pounds, with 21 pickets to the panel. The two posts shown by Figure 1 did not settle even when loaded with 300 of these picket bars, a total weight of 4,000 pounds.

FREDERICK L. PRYOR, M.E., CONSULTING ENGINEER, HOBOKEN, N. J.

October 22, 1908.

ANCHOR POST IRON WORKS,
41 Park Row,
New York City.

Gentlemen: I have the following report to make on the investigation which I made for you at your factory at Garwood, N. J., upon your type of anchorage used with I-beam posts for iron railings.

The anchorage consists of two $1\frac{1}{2}$ -inch angle irons, 36 inches in length, driven into the ground and held against the I-beam post by a malleable cast-iron shoe just below the ground level, the shoe being bolted to the post. The angle irons get their hold on the shoe by having swaged projections near the end, and they are placed at about 45 degrees with the lower part of the post. A hole is first dug about two feet deep and one foot in diameter. A 3-inch I-beam post is then driven down until it has come to a firm bed about three feet below the surface. The two angle irons are then driven into the ground through the shoe, one angle iron being driven from each side of the flange of the beam in opposite directions, the two edges of the angle being tangent to the beam.

The investigation consisted of setting two posts in the above manner and placing a dead load upon them to ascertain the amount of settlement. The first load consisted of three hundred (300) bars of iron forged for pickets, amounting to a total weight of 4,000 pounds. With this load there was no apparent settlement. An additional load of workmen, eleven (11) in number, were superadded to the above load of 4,000 pounds, making a total of 6,037 pounds. It was then found that the depression with the maximum load was $\frac{3}{8}$ inch for one post and $\frac{1}{2}$ inch for the other.

That is, at an average load on each post of 3,019 pounds there was an average settlement of $\frac{1}{16}$ inch.

Very respectfully,

FREDERICK L. PRYOR, M.E.



Fig. 1.

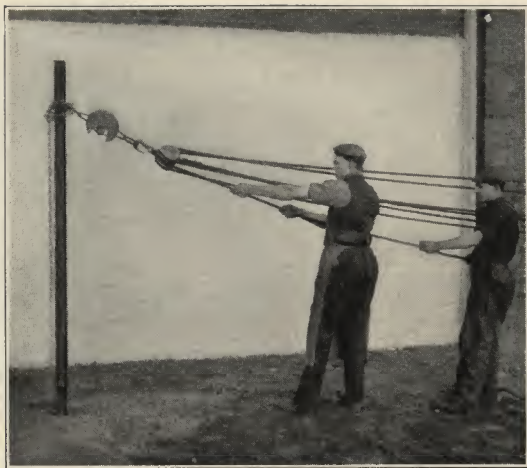


Fig. 2.



Fig. 3.

The test shown by Figures 2 and 3, and as described in the following report by Professor Pryor, was made to determine the strength of our post anchorage when subjected to the severest possible strain.

Figure 2 shows one of our standard ANCHOR posts for iron railings. It is a 3-inch I-beam, 7 feet above ground, 3 feet below ground, with blade ANCHORAGE as shown and described on page 6. The photograph was taken just after the post had been set and as the workmen were about to apply the bending strain.

Figure 3 is the same post but with the ground at the base partly removed so as to show the anchorage intact and undamaged after the post had been bent over as described in Professor Pryor's report.

FREDERICK L. PRYOR, M.E., CONSULTING ENGINEER, HOBOKEN, N. J.

ANCHOR POST IRON WORKS,
41 Park Row,
New York City.

October 22, 1908.

Gentlemen: I have the following report to make on the investigation which I made for you on the 7th inst., at your factory at Garwood, N. J. The purpose of the investigation was to ascertain the holding value of your type of anchorage used with I-beam posts for iron railing.

The post used in this test was in all respects similar in size, section, and anchorage to those described in my previous report of even date.

The investigation which I conducted was to find out how many pounds a post made of 3-inch I-beam with your anchorage could withstand when subjected to a perpendicular strain to the post and at right angle to the fence.

In order to make a test, a dynamometer was placed between a tackle and the post at about 6 feet 6 inches from the ground. A pulling load was then put on the post, and the deflections of the top of the post and the load were noted. The top of the post deflected

$\frac{7}{8}$ inch under a load of 250 pounds.
 $1\frac{1}{2}$ inches " " " " 360 "

$3\frac{5}{8}$ inches under a load of 600 pounds.
 $8\frac{3}{4}$ " " " " " 850 "

Between 600 and 850 pounds the post started to twist just above the ground and at the maximum load of 950 pounds the post itself had twisted around above the ground about 90 degrees, and had practically bent over to an angle of 45 degrees with the ground. At the ground the post had moved about 1 inch on the tension side.

A load of 950 pounds, at 6 feet 6 inches from the ground, is equivalent to a moment of 6,375 foot-pounds.

The result of this investigation was that your special form of anchorage, which has just been set in the ground, withstood, with only a yield of one inch a moment of 6,375 foot-pounds.

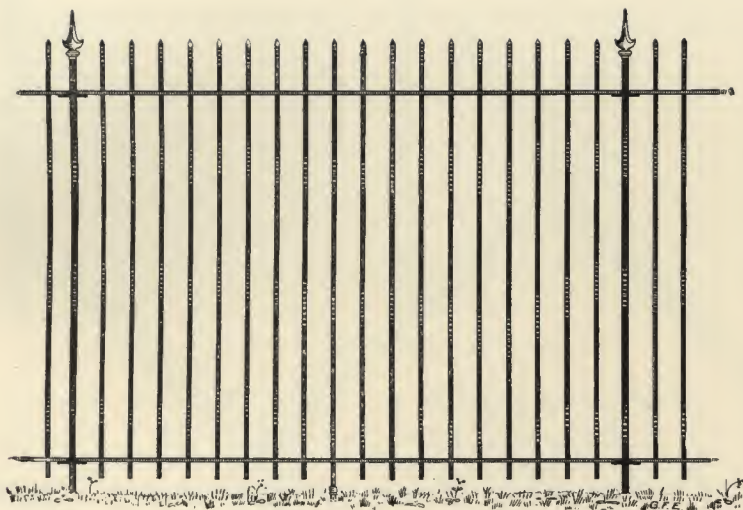
Very respectfully,

FREDERICK L. PRYOR, M.E.



RAILING—110th STREET STATION OF THE CONSOLIDATED GAS CO. Plate 451.

This railing is built on I-beam posts (4 by $2\frac{1}{2}$ inches in diameter) set in a concrete coping. It is 8 feet in height; 1,100 feet in length; the pickets are $\frac{7}{8}$ -inch square bars.

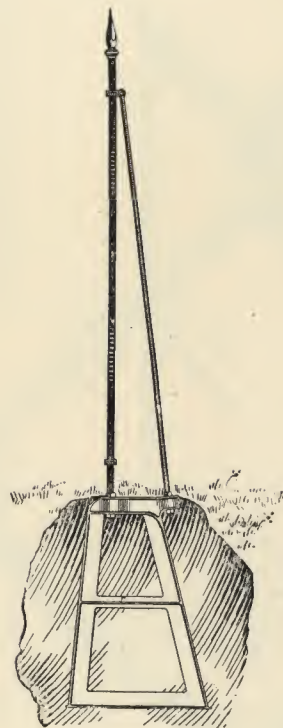


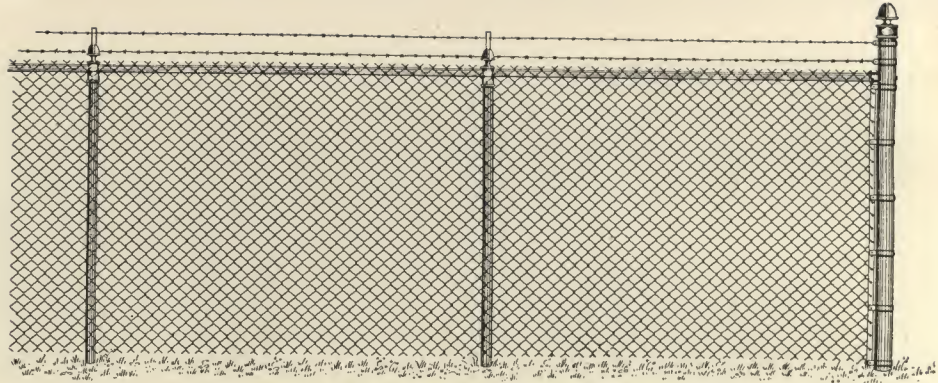
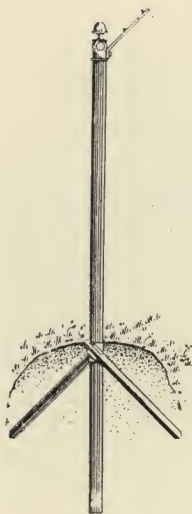
IRON RAILING ON CAST-IRON BASES. Plate 427.

This type of railing is set on cast-iron bases imbedded into the ground to a depth of 3 feet. The post and brace are so secured to the base that they can be adjusted either up or down. In this way the railing can be brought back to its true position if at any time it is thrown out of line by settlement of the ground.

Size C, $\frac{3}{4}$ -inch square pickets.
 " D, $\frac{7}{8}$ -inch square pickets.

Size H, $\frac{3}{4}$ -inch round pickets.
 " I, $\frac{7}{8}$ -inch round pickets.





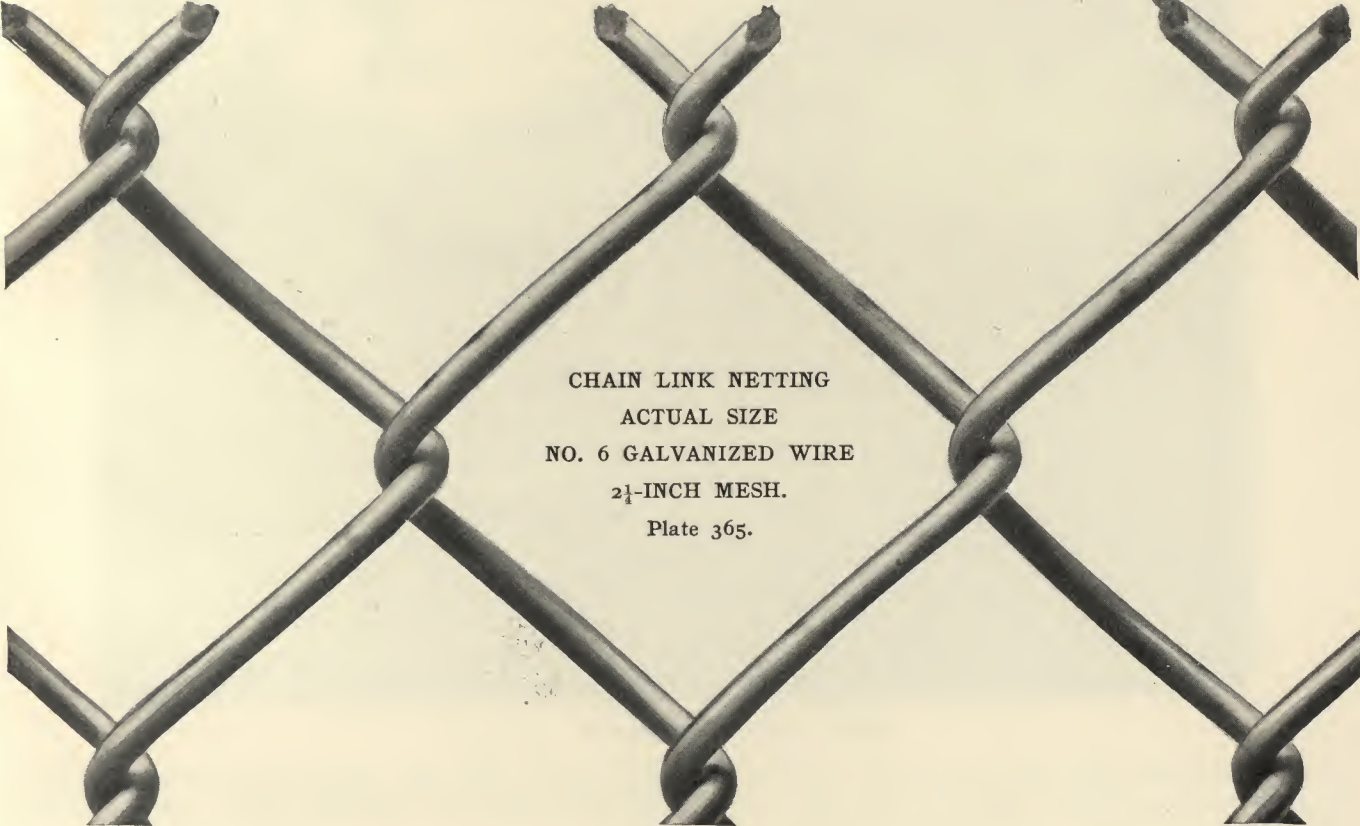
CHAIN LINK WIRE FENCE. Plate 339.

Chain Link Netting is the strongest and heaviest wire fabric made. It is woven of the best quality galvanized wire of any desired gauge from No. 11 up to No. 6, and in any width up to 8 feet. The mesh is so small that it is impossible for anyone to climb the fence.

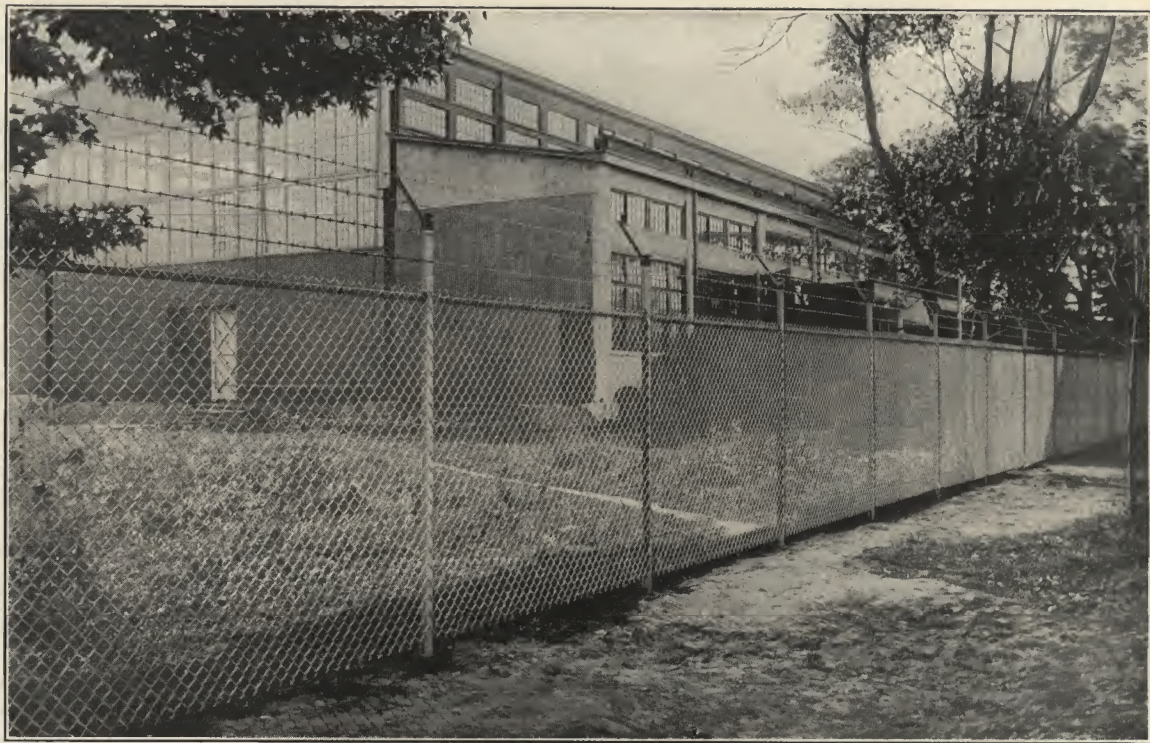
The upper edge presents a series of sharp points like the teeth of a saw. Above this are placed two or more strands of thick-set barbed wire attached to the diagonal arms of the posts. The posts are large-sized galvanized ANCHOR posts. The top rail is of 1-inch Standard pipe ($1\frac{3}{8}$ inches outside diameter). This fence will outlast a board fence two or three times over without the constant expense for repairs and repainting which a board fence requires.

For Factories, Railroads, Reservoirs, Cemeteries, Institutions or whenever a very strong, unclimbable fence is required, Chain Link Netting on galvanized ANCHOR posts cannot be equalled by any other form of fence of either wire or wood.

Height above Ground Including Arm.	Width of Wire.	Size of Wire.	Price per Lineal Foot Post Spaced 8 Feet.	Price of End and Corner Posts with Brace.	Price of Gate Posts.	Price of Gates.	
						Single 4 Feet.	Double 12 Feet.
7 feet	72 inch.	No. 9	\$1.36	\$11.25	\$14.00	\$24.00	\$57.00
8 "	84 "	" 9	1.54	12.00	15.00	26.00	62.00
7 "	72 "	" 6	1.60	11.25	14.00	25.00	60.00
8 "	84 "	" 6	1.82	12.00	15.00	27.00	65.00

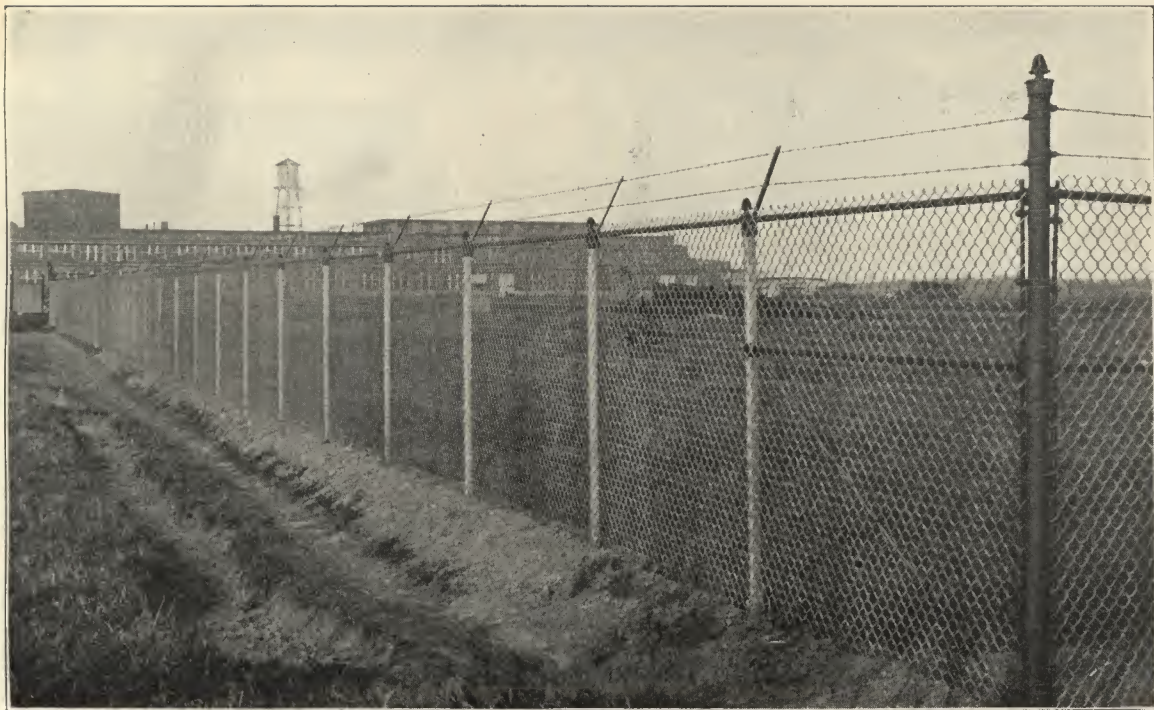


CHAIN LINK NETTING
ACTUAL SIZE
NO. 6 GALVANIZED WIRE
2 $\frac{1}{4}$ -INCH MESH.
Plate 365.



CHAIN LINK WIRE FENCE. Plate 336.

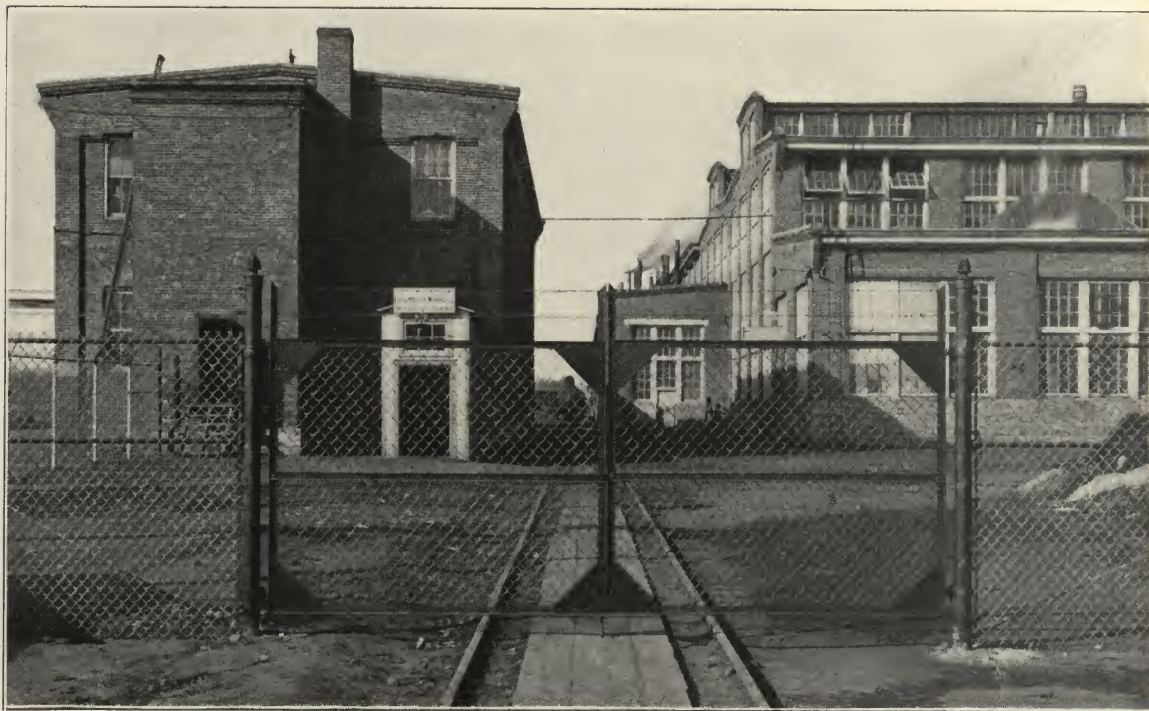
The illustration on this page shows a fence of chain link netting built by us for the Crocker Wheeler Company, Ampere, N. J. The fence is 8 feet in height and 3,600 feet in length. This fence is absolutely unclimbable, besides being the strongest wire fence on the market. For detailed description see pages 12 and 13.



CHAIN LINK WIRE FENCE—MONTREAL, CANADA. Plate 366.

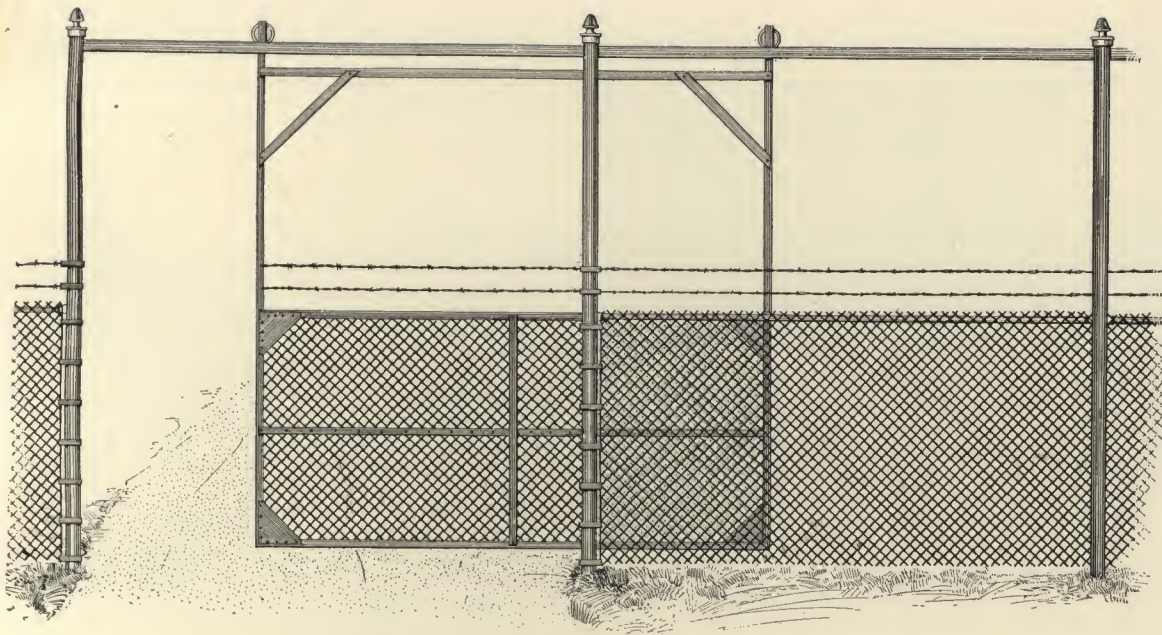
This fence surrounds the plant of the Montreal Locomotive Works, Ltd., of Montreal, Canada. It is 7 feet in height and 7,100 feet in length. The illustration shows one of the heavy corner posts with its truss brace used in all our Chain Link Fences.

The entire fence, including ten gates, was set by the Locomotive Company's own men, who had no previous experience in building fences of this kind.



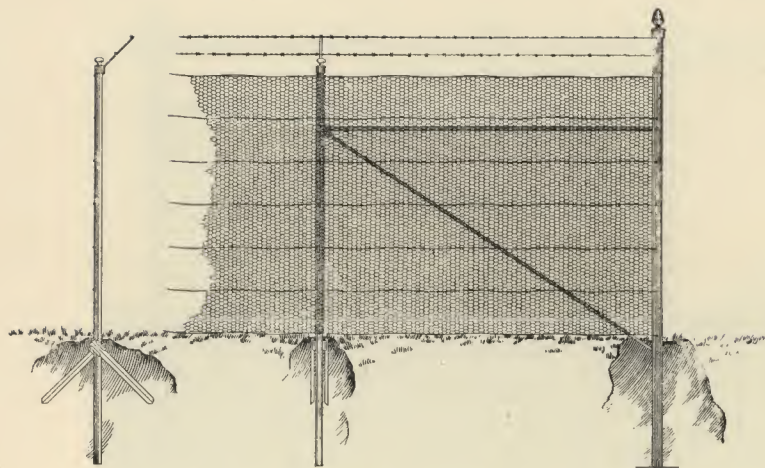
DOUBLE GATE—MONTREAL LOCOMOTIVE WORKS, MONTREAL, CANADA. Plate 367.

This illustration shows a double gate for Chain Link Fence. These gates are made for hard service. The framing is of 2-inch steel "T" bars with double corner plates and heavy malleable iron hinges and fittings. The filling is the same netting as in the fence. The gate posts are steel pipe (4 inches in diameter). These posts should be set in concrete, and we also recommend filling the body of the post itself with concrete, which is easily done by removing the top cap after the post is in place.



CHAIN LINK SLIDING GATE. Plate 368.

This gate operates on two ball-bearing trolleys running on a track bolted to the top of the gate posts. These posts are made of steel pipe (4 inches in diameter), set in concrete. The gate is strongly framed of 2-inch steel "T" with double corner plates and filled with Chain Link Netting to match the fence. The gate slides between two rollers at the base of the centre post, and locks into keepers on the latch post. Height under track 11 feet 6 inches. Width of gate 10-12 or 14 feet, as desired.

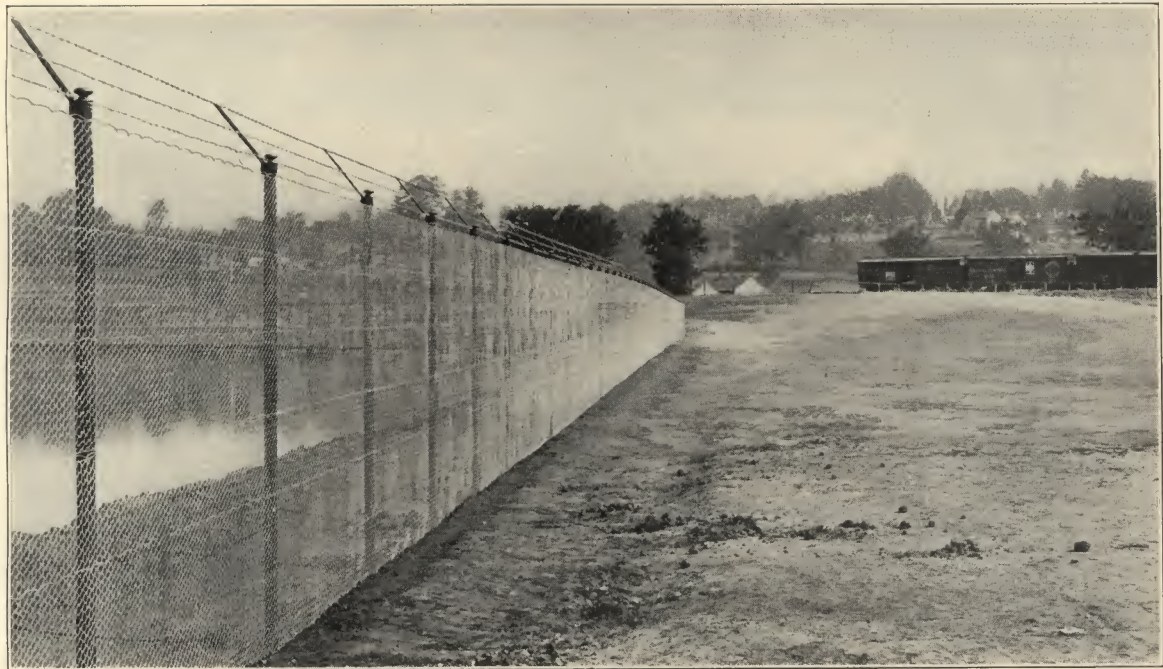


CLOSE-MESH NETTING FENCE. Plate 370.

This fence is used for enclosing country estates, deer parks, race courses, institutions, large industrial plants and wherever a strong, unclimbable fence is required. The posts are large size galvanized ANCHOR posts. The netting is $1\frac{1}{4}$ -inch mesh of No. 16 wire, which is the heaviest wire used in making netting of this kind. Attached to the posts are 7 coil-spring wires, to which the netting is fastened and which give additional strength to the fence. On the top arm two or more strands of thick-set barbed wires are attached. This fence is superior in every way to a close board fence, as it is practically indestructible and will not burn up or rot away.

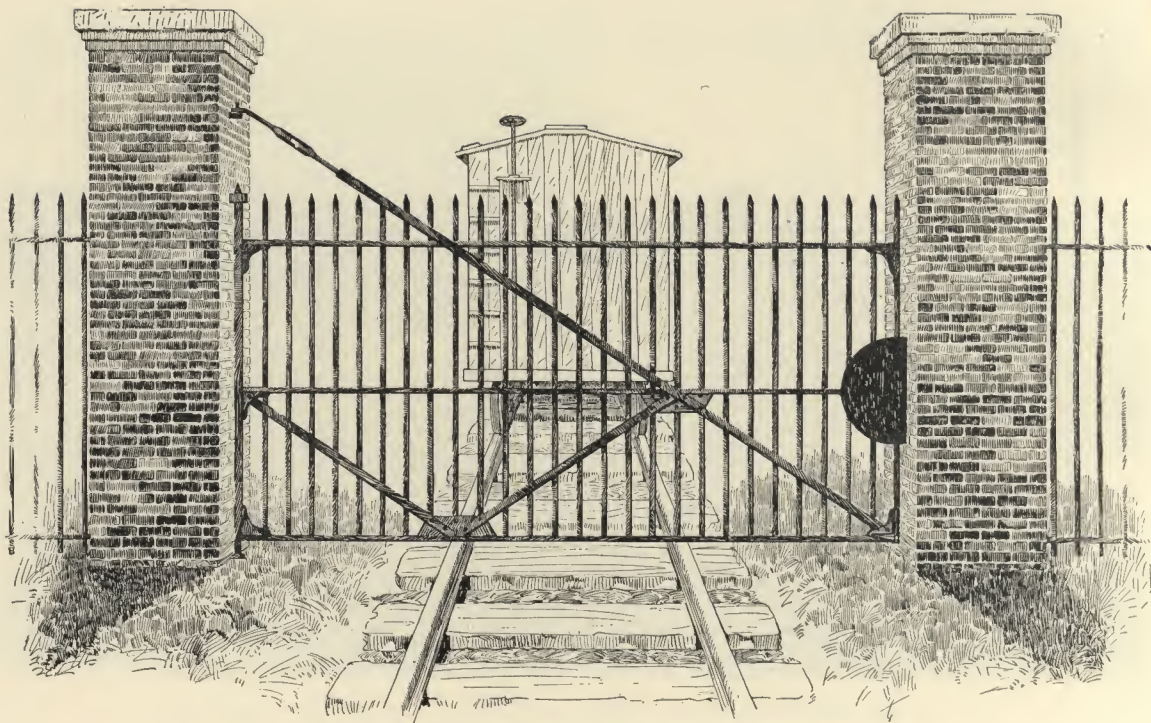
Height Above ground Including Arm.	Width of Netting.	Price per Lineal Foot.		Price of End, Corner and Gate Posts with Brace.	Price of Gates.	
		Posts Spaced.			Single 3½ feet.	Double 10 feet opening.
		8 feet.	10 feet.			
6 feet	60 inches	70 cents	63 cents	\$10.50	\$13.00	\$30.00
7 “	72 “	80 “	72 “	11.25	15.50	35.00
8 “	42-42 “	90 “	82 “	12.00	18.00	40.00

List prices, not including cost of erecting, are subject to discount. Net prices, including erecting, quoted on application.



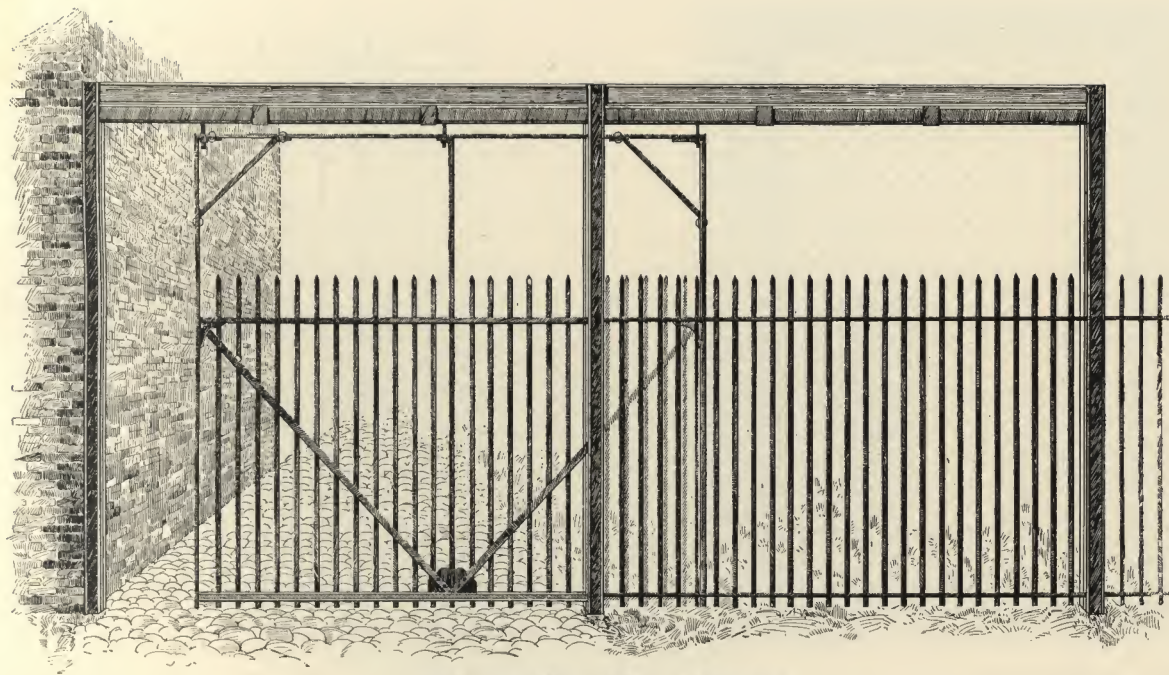
CLOSE-MESH NETTING FENCE—COLUMBIA, S. C. Plate 344.

The illustration on this page shows part of 3,000 feet of unclimbable netting fence erected by us for the Board of Water Commissioners, City of Columbia, S. C., entirely enclosing the city reservoirs. The fence is 8 feet in height and is built throughout on galvanized ANCHOR posts.



WROUGHT-IRON FACTORY GATE. Plate 452.

This is a very strong factory gate which will never sag or get out of order if the brick piers are properly built. The latch is a heavy slide bolt locked by either a padlock or cylinder lock with small key. For a track gate the width between piers should not be less than 14 feet.

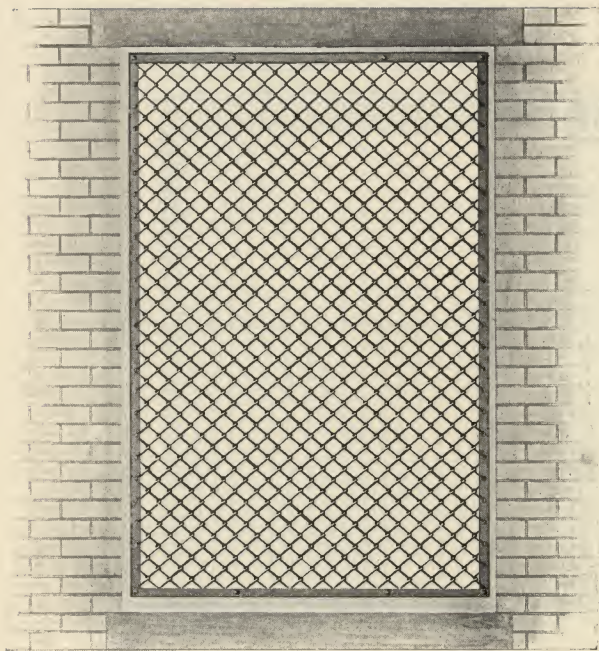


IRON SLIDING GATE. Plate 453.

In many places where space is restricted, it is advisable to use a sliding gate. The one shown above operates on an overhead track with anti-friction rollers. The posts supporting the track are made of two 4-inch channels with space between them in which the gate slides and latches. When closed, it is securely locked in the pocket between the posts.

The height under track is 11 feet 6 inches.

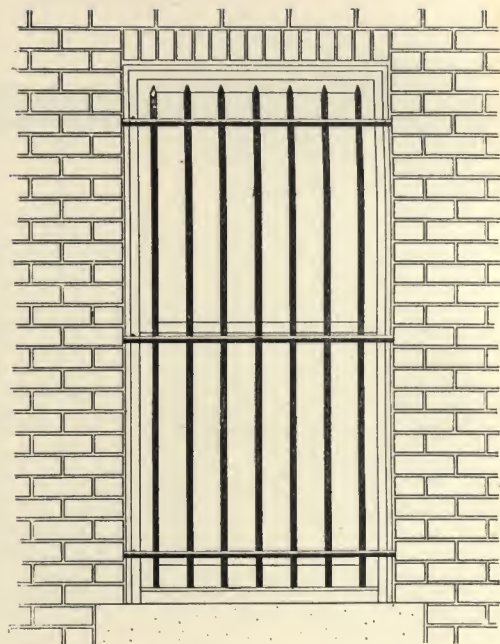
Width of gate, 10-12 or 14 feet as desired. These gates are strongly built and operate very easily.



WIRE WINDOW GUARD. Plate No. 459.

These guards are made of Chain Link Netting, of 1, $1\frac{1}{4}$, $1\frac{3}{4}$, and $2\frac{1}{4}$ -inch mesh on steel angle frames.

The guard can be screwed directly to the window casing or set out on metal knees so as to stand flush with the face of the building. They are also made to hinge if desired and lock with brass padlocks.



WROUGHT-IRON WINDOW GUARD. Plate No. 460.

These guards are either screwed to the window casing or made so that the ends of the rails set into the brickwork.

In writing for prices, give measurements of width and height of window opening from face to face of brick, also distance from face of building to wood casing, and state which method of attaching guard is preferred.





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